

[54] **ALSTROEMERIA PLANT NAMED ROSA**  
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[57] **ABSTRACT**

An Alstroemeria plant named Rosa, characterized by its flowers which have a red-purple background, and upper petals which have heavy grayed-purple markings, yellow patches and areas of infused white; few non-flowering stems per plant; winter production beginning in mid-November, and good post-harvest flower color retention.

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**1 Drawing Sheet**

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The present invention relates to a new and distinct cultivar of Alstroemeria plant hereinafter referred to by the cultivar name Rosa.

Rosa is a product of a planned breeding program which had the primary objectives of creating new Alstroemeria cultivars having unique flower color and being capable of early winter production with low maintenance requirements. The latter term refers to the production of a minimum of non-flowering stems. Such traits in combination were not present in previously available commercial cultivars.

In order to fully understand an important characteristic of the new cultivar, an explanation of typical current winter production schedules for cut flowers of Alstroemerias would be helpful. Standard industry growing practices normally utilize only natural daylight. As a result, late fall and winter production of Alstroemeria cut flowers, due to reduced levels of light during these periods, typically requires 12 weeks or more of growing time from the planting of the rhizome cutting to the initiation of flowering. Even more time is required for further flowering to produce a stem ready to sale. With certain varieties, the period of time from planting to flowering can extend up to almost six months. This time will substantially vary from variety to variety, and growing techniques and conditions also affect the growing period. For example, a larger cutting will obviously require a shorter growing time than a relatively small cutting. High temperatures normally have an adverse effect on growth, as does reduced light.

The commercial implications of relatively slow growth characteristics under natural light conditions should be obvious. Increased bench or field time (if grown outdoors where climates permit) substantially increases production costs, which in turn result in increased costs per stem due to the increased cost of production. Total production of Alstroemeria cut flowers during such period is also correspondingly less. This adversely affects the normal supply/demand ratio in the marketplace, and as a result cut flowers of Alstroemeria are substantially more costly during the winter months than during the periods beginning in March when production increases. It is not unusual for stem prices to be 50% higher during the winter months of December, January, and February.

The inventor has discovered that through photoperiodic growth practices, certain cultivars can be brought into flowering in the late fall and winter periods in substantially reduced periods of time, thereby increas-

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ing production during these periods. However, all cultivars are not adaptable to photoperiodic control.

Through extensive breeding, the inventor has been able to produce new Alstroemeria cultivars, of which Rosa is one, specifically adaptable to photoperiodic control. The inventor's preferred growing technique includes growing the newly stuck plants under natural light conditions for approximately one month without light supplement. After approximately one month, the day length is effectively increased by providing four hours of artificial lighting by techniques or methods well known in the industry.

A preferred growing regimen which has provided excellent results comprises planting established rhizome divisions in ground beds near the end of August or first of September. Beginning approximately one month after planting, and continuing to April 1, the plants are subjected to light from 2:00 a.m. to 6:00 a.m. daily. A lighting system which has proved highly effective consists of 135 watt bulbs spaced every 10 feet, and hung approximately 7 feet above the ground. The bulbs are positioned in rows that are spaced 12 feet apart.

By effectively increasing the day length by means of artificial lighting, flowering can be initiated in a much shorter time. Within approximately six (6) weeks the first flower appears, and saleable stems are ready from mid-November to mid-December, depending upon the variety. In many instances, flowering is essentially continuous until June when the stems are too short to sell as cuts without heavy shading and some method of cooling. Without shading and cooling to prolong commercial stem production, it is common practice to dig up and divide the plants. The divided plants are then stuck in late August or early September as described, and the cycle repeated. It has also been noted that the increased light regimen has resulted in longer stems, a very desirable quality.

Rosa was originated by the inventor Erwin Mojonnier from a hybridization made in a controlled breeding program in Encinitas, Calif. in 1988. The female parent was a cultivar identified as L8, a tall plant with a dark pink cheek against a light pink background flower. Streaking is sparse on the upper and lower petals, and a faint yellow patch appears on the upper petals. The male parent of Rosa was a cultivar identified as L1, a tall plant with a lavender cheek against a light lavender background. Streaking appears on the upper and lower

petals, and there is a yellow patch against a white throat on the upper petals.

Rosa was discovered and selected as one flowering plant within the progeny of the stated parentage by Erwin Mojonier in May 1988 in a controlled environment in Encinitas, Calif.

The first act as asexual reproduction of Rosa was accomplished when vegetative cuttings were taken from the initial selection in August 1988 in a controlled environment in Encinitas, Calif. by Erwin Mojonier. Horticultural examination of selected units initiated in 1989 has demonstrated that the combination of characteristics as herein disclosed for Rosa are firmly fixed and retained through successive generations of asexual reproduction.

Rosa has not been observed under all possible environmental conditions. The phenotype may vary significantly with variations in environment such as temperature, light intensity and day length. The following observations, measurements and comparisons describe plants grown in Encinitas, Calif. under greenhouse conditions which approximate those generally used in commercial practice.

The following traits have been repeatedly observed and are determined to be basic characteristics of Rosa, which is combination distinguish this *Alstroemeria* as a new and distinct cultivar:

1. Low maintenance, with few non-flowering stems produced per plant.

2. Rosa is responsive to increased light for initiating flowering. By effectively increasing day length by artificial light in optimum amounts, the first flower appears approximately six weeks after rhizome planting and saleable stems in full flower are ready by mid-November. Thus, winter production can begin relatively early and, through photoperiodic control, continue throughout the winter period. Production can therefore be effectively staggered continuously through winter periods of low natural light.

3. Rosa possesses good post-harvest color retention.

4. The background color of the petals and sepals is red-purple, with the upper petals having grayed-purple markings and areas of yellow. The lower petal has a few markings, but no yellow coloration.

5. Rosa is easily propagated from rhizomes.

The accompanying color photographic drawing shows typical inflorescence and foliage characteristics of Rosa, with colors being as nearly true as possible with illustrations of this type. The photograph comprises an enlarged close-up view of an open flower of Rosa, clearly showing flower parts and colors.

In the following description, color references are made to The Royal Horticultural Society Colour Chart (R.H.S.). The color values were determined between 7:45 and 8:30 a.m. on May 10, 1990 under 200 foot candles of light intensity at Encinitas, Calif.

Classification: *Alstroemeria* cv. Rosa.

Commercial: *Alstroemeria*.

## PLANT

Form: Cut flower.

Height: Approximately 107 cm. at time of harvest.

Propagation: From rhizomes.

Growth Habit: Excellent.

Foliage:

*Quantity*.—Approximately 19 leaves per stem.

*Size of leaf*.—Approximately 13.4 cm. × 3.0 cm.

*Shape of leaf*.—Lanceolate.

*Color*.—Upper side, green 137A; under side green 137B.

Rhizomes:

*Color*.—White, 155B.

*Size*.—1 cm. × 1 cm. at growing tip.

## INFLORESCENCE

Bud:

*Form*.—Indeterminate.

*Diameter*.—1.5 cm.

*Length*.—4.7 cm.

*Calyx*.—4 mm.

*Peduncle*.—Length, 3.6 cm.

*Color*.—Yellow-green, 145A.

Flower:

*Size*.—Approximately 5.3 cm. in total diameter.

*Borne*.—4–5 flowers per umbel.

*Blooming habit*.—Flowers to saleable stems by mid-November from cuttings stuck around September 1.

*Shape*.—Asymmetrical.

*Color*.—Generally, the sepals of Rosa are pink in background color, with a red cheek appearing on both the upper and under surfaces of the sepals. The upper two petals are streaked and have yellow patches in the middle of the petals. The sepals have green tips visible on both surfaces. The upper petals are also infused with white. Upper surface: Outer, red-purple 63B; cheek, red-purple 63A. Under surface: Outer, red-purple 63B; cheek, red-purple 63A. Other notations: Sepals: Green tip, 141A. Petals: Streaks, grayed-purple 187A; yellow patch (upper petals only), yellow 4A; white areas (upper petals only), green-white 157C.

*Peduncle*.—Length, 6.8 cm.; color, yellow-green 145A.

*Lasting quality*.—Cut flowers last approximately 14 days after harvest.

## REPRODUCTIVE ORGANS

Stamens: Number, 6.

Anthers: Color, grey-brown, 199A.

Filaments: Color, red-purple 63C.

Pistils: Number 1; color, red-purple 63C.

Stigma: Color, red-purple 63C.

I claim:

1. A new and distinct cultivar of *Alstroemeria* plant named Rosa, as illustrated and described.

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